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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of

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Title: ELECTRONIC CIRCUIT, AND METHOD OF OPERATING A HIGH
PRESSURE LAMP

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CORRECTED SUMMARY OF THE CLAIMED SUBJECT MATTER OF APPEAL BRIEF

Sir:

Appellant herewith respectfully presents a corrected summary of the claimed subject matter of the Brief on Appeal responsive to the Notice of Non-Compliant Appeal Brief mailed on March 7, 2007, related to a Brief on Appeal that was originally filed on November 22, 2006:

SUMMARY OF THE CLAIMED SUBJECT MATTER

The present invention, for example, as claimed in independent Claim 12, where an illustrative embodiment is shown in FIG 1, relates to electronic circuit 100 for operating a high-pressure lamp 120 in at least two modes, as described on page 4, lines 21-23 of the specification.

As described on page 4, lines 24-33 and shown in FIG 1, the electronic circuit 100 includes a first half bridge 110-1 and a second half bridge 110-2 connected in parallel between an operating potential (+) and a reference potential (-). As described on page 7, lines 10-15, the first half bridge 110-1 includes two switches connected in series, wherein a first switch conducts and a second switch is non-conducting at zero current from the output 112-1 of the first half bridge 110-1 during a first mode of operation. The electronic circuit 100 also includes first means, such as power transistors T3, T4 for operating the second half bridge 110-2.

As described on page 5, lines 1-15, a filter, such as a first coil L1 (and a first capacitor C1), is coupled to the output 112-1

of the first half bridge circuit 110-1, and a resonant circuit (including a second coil L2 and second capacitor C2) is coupled to the output 112-2 of the second half bridge circuit 110-2. As shown in FIG 1, the lamp can be coupled between the filter L1 and the resonant circuit L2, C2.

As shown in FIG 1, the electronic circuit 100 includes a capacitor C3 or C4 coupled between the first coil L1 and either the reference potential (-) or the operating potential (+); and another capacitor C5 or C6 (shown in FIG 6) coupled between the second coil L2 and either the reference potential (-) or the operating potential (+). As shown in FIG 5, the second capacitor C2 may be connected in parallel to the high-pressure lamp 120.

For example, a third capacitor C3 is connected between the output 112-1 of the first half bridge 110-1 and either the operating potential (+) or the reference potential (-); and a fourth capacitor C4 is connected between the operating potential (+) and the output 112-1 of the first half bridge 110-1. As shown in FIG 6, a fifth capacitor C5 is connected between the output of the second half bridge 112-2 and the operating potential (+), and a

sixth capacitor C6 is connected between the reference potential (-) and the output 112-2 of the second half bridge 110-2.

As described on page 5, lines 16-31 and shown in FIG 1, the electronic circuit 100 further includes second means for operating the first half bridge 110-1, such as a sensor device 130, a comparator device 140 and a delay device 150. As described on page 9, lines 15-17, in one mode of operation, the first half bridge 110-1 is operated at a higher frequency than the operating frequency of the second half bridge.

The sensor device 130, such as a magneto-resistive sensor, is provided for generating a current-sensor signal which represents the value of the current through the first coil L1. The comparator device 140 is provided for comparing the value represented by the current-sensor signal with a given reference current value I_R and for generating at least one control signal for controlling the level of the current through the first coil L1, and through the high-pressure lamp 120, to the given reference current value I_R through a suitable variation of the duty cycles of the switching elements T1, T2 of the first half bridge 110-1.

As described on page 5, line 32 to page 6, line 6, the delay device 150 is provided for delaying the control signal for controlling the switching elements T1, T2 of the first half bridge 110-1 by a given delay time with respect to the moment when it is detected that the level exceeds the reference value IR in upward or downward direction, which delay time is defined such that at least a desired critical damping establishes itself in the filter formed by the second coil L2 and the first capacitor C1, and that the current through the first coil L1 changes its sign at least twice during a switching cycle of the switching elements T1, T2 of the first half bridge.

As described on page 2, line 30 to page 4, line 16, the first half bridge 110-1 and the second half bridge 110-2 operate independently of each other.

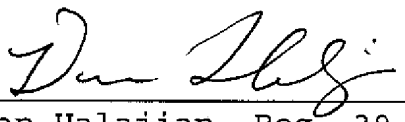
As described on page 6, lines 11-24, the second half bridge 110-2 may be operated at a frequency corresponding to the resonant frequency of the resonant circuit, or to an odd fraction thereof, so as to generate an ignition voltage necessary for igniting the high-pressure lamp 120. As described on page 9, lines 1-5, after

ignition of the high-pressure lamp, the switching frequency of the second half bridge 110-2 is reduced, thus reducing the frequency of the current through the high-pressure lamp 120. As described on page 9, line 24 to page 10, line 9, the switching elements T1, T2, T3, T4 of the first half bridge 110-1 and the second half bridge 110-2 may be operated in accordance with the principle of voltageless switching.

In addition, Appellant denies any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Appellant reserves the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

In view of the above, it is respectfully submitted that the Brief on Appeal is compliant and consideration on the merits is respectfully requested.

Respectfully submitted,

By 
Dicran Halajian, Reg. 39,703
Attorney for Appellant
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THORNE & HALAJIAN, LLP
Applied Technology Center
111 West Main Street
Bay Shore, NY 11706
Tel: (631) 665-5139
Fax: (631) 665-5101